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An inaugural essay on Laryngeal Tracheitis.
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of the
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for
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by
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of
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Philadelphia

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An inaugural essay on Cynanche Trachealis.

The name by which this disease is known among the vulgar is Hoarseness, supposed to be a corruption of the word Heaves from the manner in which a patient labouring under it, heaves his chest in breathing. It has received, by authors, various names, such as suppurative stridula, cynanche trachealis, tracheitis, a pleurisy of the windpipe &c. This is one of the diseases of the respiratory system, according to the most ~~now~~ ^{now} adopted by professor Chapman. It was described by Dr. Hume, a professor at Edinburgh, as a new disease and consequently secured to himself all the honour of having first described and brought into notice this formidable disease; but professor Chapman strips him of this honour by proving that it was described by an earlier writer. Dr. Hume's description of it was written about the middle of the ^{18th} ~~seventeenth~~ century. ✓
Cynanche Trachealis is divided into spasmodic and inflammatory; the former when it attacks very

suddenly and runs its course very rapidly, and when upon dissection, there is no appearance of inflammation. the latter, when it comes on more gradually, is longer in running through its different stages, and is attended with the usual symptoms of inflammation. Diphtheria, just mentioned, shew this disease to consist in the former case, in a spasmodic contraction of the muscles of the glottis producing suffocation; and in the latter an inflammation of the membrane lining the internal surface of the trachea. The division of croup into inflammatory and spasmodic is altogether superfluous and unnecessary, inasmuch as it frequently partakes both of spasm and inflammation, and whether it does or not the treatment in both cases is the same.

The disease under consideration is confined almost exclusively to children, mostly from the age of one to that of five years; but we sometimes meet with it, though very rarely, in adults, and even in advanced age; an instance of which is afforded by the

Illustrations Washington who died of this disease.

I come now to the causes of this disease, and here I will say a few words against the idea of its specific and contagious nature. The advocates of this opinion say, that if it were not of a specific nature and entirely different from what we conceive to be its most frequent form, a common catarrh, we should frequently find membranes formed on the internal surface of the trachea in consequence of slight catarrhal affections. Now, to confute this argument, I presume it will only be necessary to prove, that that species of inflammation which results in the formation of a membrane or a solid body, by an effusion of coagulable lymph, is not confined to the trachea, and to this end we have the authority of Dr Scarpa who has proven that the membrana decidua, the membrane on the internal surface of the placenta and intestines are dependant upon the same process; and I have even one found in the urethra, by

the inflammation of that passage, consequent to
the application of a blister. The usual causes of this
disease are cold and dampness, particularly when
combined, sudden changes of weather &c. hence its
more frequent occurrence in winter than in summer,
in northern than in southern latitudes. It is said by
some to be occasionally ^{also} epidemic. It is likewise said
to be endemic to some places.

The precursory signs, of an attack of croup, are
stupidity and inactivity, heavy and suffused eyes,
and these symptoms are accompanied with a cough
of a peculiar sound, compared, by authors, to the
barking of a little dog. Shortly after the appearance
of these symptoms, the patient is attacked with
a shivering succeeded by flushings of heat, sim-
ilar to an attack of common synocha. Now
all the symptoms become very much aggravated,
respiration is performed with the utmost difficulty, at-
tended with a shrill sound during inspiration as if the
passage of the trachea were straitened and very

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much contracted, the countenance is suffused and
wild, and the patient throws back his head to pre-
vent immediate suffocation. There is sometimes a
considerable degree of nausea and vomiting in the
past stage of the disease. The pulse is strong and
quick with much febrile heat. We are, however,
not always favoured with the pulmonary signs,
above enumerated, to warn us of approaching dan-
ger but on the contrary, it sometimes makes its
attack suddenly and in the night, the patient a-
waking, afflicted with all the symptoms above mentioned.
Other this is the case, the most violent symptoms
sometimes remit during the day and recur again
at night. As the disease advances, the symptoms be-
come more and more urgent, until at length, if
relief be not obtained, suffocation closes the scene.
Croup may be distinguished from acute asthma,
to which it bears, in some of its forms a close resem-
blance, by the following diagnostics: the former is
attended with a frequent strid. cough, whereas in the

* vide Thomas's Practice of Physic

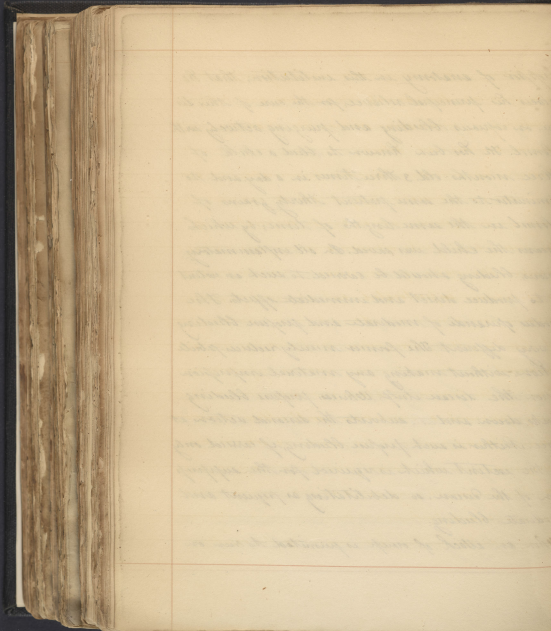
either there is little or no cough; in croup there is not
often any vomiting, in asthma it is one of the most
prominent symptoms, and it is generally attended
with some evacuations, as purging, vomiting or sweating.
In croup, the pulse is frequent and strong with much
febrile heat, and the voice is small and shrill;
in asthma the pulse may, perhaps, be equally quick
but not so full, and the voice is deep and croaking.
On the first appearance of the threatening symp-
toms an active emetic will positively check the further
progress of the disease, and if it does not arrest it at
once, it greatly abates the violence of its subsequent stage.
But if the emetic should not have the desired effect,
we should abstract blood from the arm, and if this
be impracticable or is sometimes the case in very young
subjects, we may open a vein in any other part of
the body where it is most convenient, from which
a sufficient quantity of blood may be taken, we
should at the same time repeat the emetic, and
here I will observe, that is a consequence of the great

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insensibility of the stomach in this disease, the emetic
medicine, which should be ~~tax~~ ^{not}, should be given
in very large quantities and often repeated, until
it vomits actively, which may be very much pro-
moted by placing the patient in a warm bath.
When the medicine has operated actively, it will gene-
rally be found that the disease has given way. But should
the attack still remain obstinate, it will be necessary
to place the patient in a warm bath and bleed
ad deliquium animi. When pushed to this extent, it
is said, the lancet never fails. After general bleeding has
been carried as far as may be advisable, we must resort
to topical bleeding with cups and leeches and the
application of a large blister to the throat reaching
from one ear to the other. At this stage of the disease,
mercury (or in other words) calomel should be given in
large and frequently repeated doses, so as to induce
active purging. This is a remedy of very great
importance in completing and establishing the
cure. So highly is it esteemed by the venerable

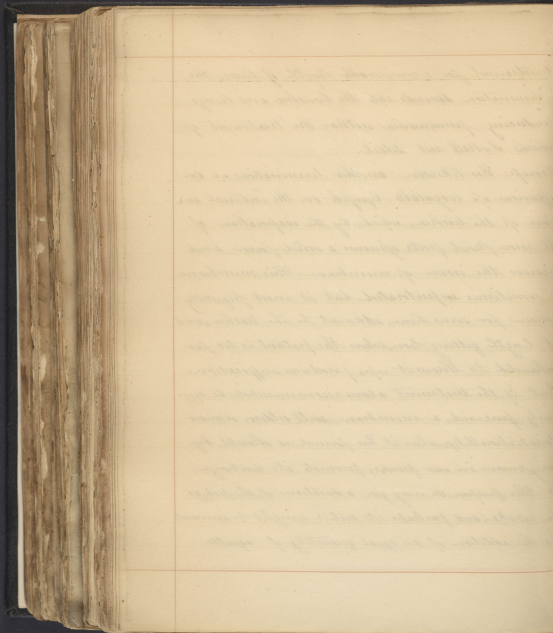
profuse of anatomy in this institution, that he places his principal reliance, for the cure of this disease, on copious bleeding and purging actively with calomel. He has been known to bleed a child of three months old, 3 three times in a day, and to administer to the same patient thirty grains of calomel in the same length of time, by which means the child was saved. In all inflammatory diseases, bleeding should be carried to such an extent as to produce direct and immediate effects. The modus operandi of moderate and profuse bleeding is very different. The former merely reduces pulsations, without making any material impression upon the disease itself. Whereas, profuse bleeding breaks down and subverts the diseased action at once. Neither is such profuse bleeding, if carried only to the extent which is required for the suppression of the disease, so debilitating as frequent and moderate bleeding.

When an attack of croup is permitted to run on

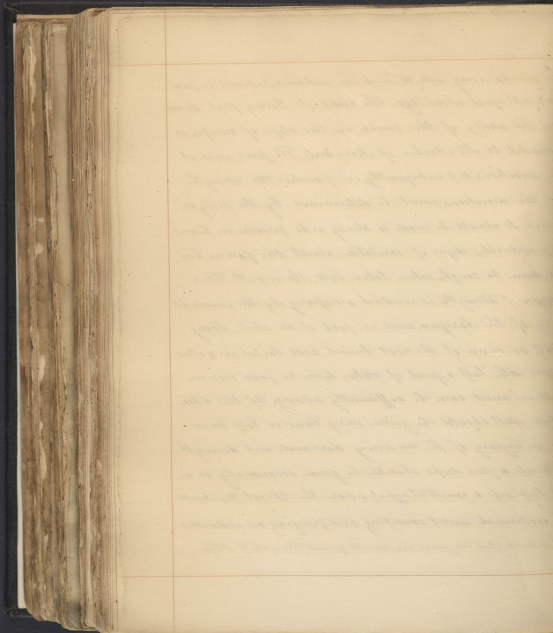


unrestrained for a considerable length of time, the inflammation spreads into the bronchia and lungs producing pneumonia rather the treatment of which I shall not detail.

Croup has likewise another termination as an effusion of coagulable lymph on the internal surface of the trachea, which, by the evaporation of the more fluid parts assumes a solid form and receives the name of membrane. This membrane is sometimes expectorated, but it most frequently remains for some time, adherent to the trachea, and at length getting looser, when the patient is too far exhausted to throw it up, produces suffocation. But if the treatment above recommended be vigorously pursued, a membrane will seldom or never form. Nevertheless, when it has formed, we should, by every means in our power, promote its discharge. For this purpose, we may give a decoction of the polygala senega, and perhaps its virtue might be increased by the addition of an equal quantity of squills.

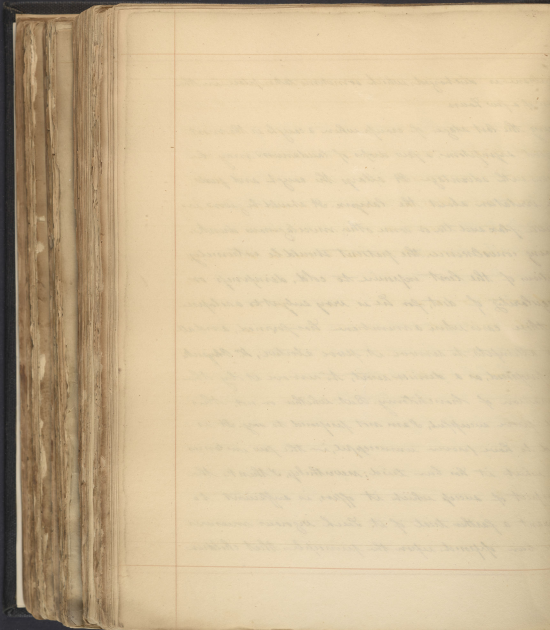


The seneka may also be used in substance reduced to powder, with equal advantage. The credit of having first discovered the utility of the seneka in this stage of croup, is accorded to Dr. Archer of Maryland. He first used it in decoctions, but subsequently in powder. The strength of the decoction must be determined by the physician. It should be made so strong as to produce in himself a considerable degree of irritation about the fauces and a desire to cough, when taken into the mouth. This degree of strength is rendered necessary by the insensibility of the larynx, and in fact of the whole body. Half an ounce of the root bruised and boiled in a close vessel with half a pint of water, down to four ounces, will in most cases be sufficiently strong. Of this a tea spoon full should be given every hour or half hour as the urgency of the case may demand, and during the intervals a few drops should be given occasionally so as to keep up a constant effect upon the throat. This should be continued until vomiting and purging are induced; it should then be given in small quantities until the



membrane is discharged, which sometimes takes place in the
course of a few hours.

During the last stage of croup when a cough is the most
urgent symptom, a few drops of laudanum may be
given with advantage. It allays the cough and quiet
the irritation about the larynx. It should be given in
a little flax seed tea or some other mucilaginous drink.
During convalescence, the patient should be extremely
cautious of the least exposure to cold, dampness or
irregularity of diet, for he is very subject to a relapse.
In those cases where a membrane has formed, and all
our attempts, to remove it, prove abortive, Dr. Physick
has proposed, as a dernier resort, to remove it by the
operation of tracheotomy. But, whether or not, this
will prove successful, I am not prepared to say. It is
said to have proven unsuccessful, in the few instances
in which it has been tried; nevertheless, I think the
prospect of success which it offers, is sufficient to
warrant a farther trial of it. Such vigorous measures
have been opposed, upon the principle, that children



could not sustain their operations; than which there is
nothing more erroneous, for it is a fact as well established
as any in medicine, that children recover from more
surgical operations and from the operation of active
medicines more speedily and certainly than adults.
Dr. Rush says they display an uncommon tenacity
of life and extraordinary recuperative powers, sur-
viving under circumstances which would destroy adults.
From these facts we are led to a very important prac-
tical conclusion and that is, never to despair of the
life of a child labouring under an acute disease;
but continue to administer to the restorative princi-
ple, as long as a vital spark remains.

